



United States
Department of
Agriculture

Food Safety
And Inspection
Service

Technical
Service
Center

Suite 300, Landmark Center
1299 Farnam Street
Omaha, NE 68102

AUDIT REPORT FOR ICELAND

OCTOBER 25 THROUGH OCTOBER 30, 1999

January 22, 2001

INTRODUCTION

Background

This report reflects information that was obtained during a review of Iceland's meat inspection system from October 25 through October 30, 1999. The four establishments certified to export red meat to the United States were audited.

The last audit of the Iceland meat inspection system was conducted in October 1998. Only one establishment (31) and two laboratories were reviewed.

The principal concerns with the system at that time were the following:

1. Documentation of corrective actions taken for any identified pre-operational and operational sanitation discrepancies was not maintained in the establishment 31.
2. Intralaboratory check samples for trace elements were not carried as required by FSIS.

During calendar year 1999 till September, one (31) establishment exported 10, 843 pounds of mutton and lamb to the U.S. Port-of-entry rejections were none.

PROTOCOL

This on-site review was conducted in four parts. One part involved visits with Icelandic national meat inspection officials to discuss oversight programs and practices, including enforcement activities. The second entailed an audit of a selection of records in the meat inspection headquarters facilities preceding the on-site visits. The third was conducted by on-site visits to establishments. The fourth was a visit to two laboratories, one performing analytical testing of field samples for the national residue testing program, and other culturing field samples for the presence of microbiological contamination with *Salmonella*.

Iceland's program effectiveness was assessed by evaluating five areas of risk: (1) sanitation controls, including the implementation and operation of Sanitation Standard Operating Procedures (SSOPs), (2) animal disease controls, (3) residue controls, (4) slaughter/processing controls, including the implementation and operation of Hazard Analysis and Critical Control Point (HACCP) systems and the *Escherichia coli* (*E. coli*) testing program, and (5) enforcement controls, including the testing program for *Salmonella* species.

During all on-site establishment visits, the auditor evaluated the nature, extent, and degree to which findings impacted on food safety and public health, as well as overall program delivery. The auditor also determined if establishment and inspection system controls were in place. Establishments that do not have effective controls in place to prevent, detect and eliminate product contamination/adulteration are considered unacceptable and therefore ineligible to export products to the U.S., and are delisted accordingly by Iceland's meat inspection officials.

RESULTS AND DISCUSSION

Summary

Based on the performance of the individual establishments, Iceland's "In-Plant Inspection System Performance" was evaluated as In-Plant System Controls In Place.

Effective inspection system controls were found to be in place in four (22, 23, 31, and 81) establishments audited. Details of audit findings, including compliance with HACCP, SSOPs, and testing programs for *Salmonella* and generic *E. coli* are discussed later in this report.

Entrance Meeting

On October 26, an entrance meeting was held at the Ministry of Agriculture (MOA) offices of the Chief Veterinary Offices (CVO) and was attended by Dr. Halldor Runolfsson, Chief Veterinary Officer, Dr. Sigurour Hansson, Chief Meat Inspection and Mr. Edwin P. Brown, Counselor-ECO./COM, American Embassy. Topics of discussion included the following:

1. Audit findings of 1998 and their corrective actions.
2. Equine slaughter and separation of slaughter of other species.
3. HACCP implementation.

Headquarters Audit

There had been no changes in the organizational structure or upper levels of inspection staffing since the last U.S. review of Iceland's inspection system in October 1998.

To gain an accurate overview of the effectiveness of inspection controls, FSIS requested that the reviews of the individual establishments be led by the inspection officials who normally conduct the periodic reviews for compliance with U.S. specifications. The FSIS auditor (hereinafter called "the auditor") observed and evaluated the process.

The auditor conducted a review of inspection system documents. This record review was conducted at the offices of the CVO. The records review focused primarily on food safety hazards and included the following:

- Internal review reports.
- Supervisory visits to establishments that were certified to export to the U.S.
- New laws and implementation documents such as regulations, notices, directives and guidelines.
- Sampling plan and laboratory results for residues.
- Pathogen reduction and other food safety initiatives such as SSOPs, and HACCP programs,
- Sanitation, slaughter and processing inspection procedures and standards.
- Control of products from livestock with conditions such as tuberculosis, cysticercosis, etc., and of inedible and condemned materials.

- Export product inspection and control including export certificates.
- Enforcement records, consumer complaints, recalls, seizure and control of noncompliance product, and withholding, suspending, withdrawing inspection services from or delisting an establishment that is certified to export product to the United States.

No concerns arose as a result of the examination of these documents.

Government Oversight

All inspection veterinarians and inspectors in establishments certified by Iceland as eligible to export lamb products to the United States were full-time MOA employees, receiving no remuneration from either industry or establishment personnel.

Establishment Audits

Four (22, 23, 31, and 81) establishments visited, both Iceland inspection system controls and establishment system controls were in place to prevent, detect and control contamination and adulteration of products in the boning and cutting areas of lambs. Peeling paint and rust spots were common findings in the facilities and on the equipment of idle slaughtering area of establishments 22, 23, and 31.

Boneless meat inspection was not done at any establishment because of shortage of Quality control technicians.

Slaughtering operations were not observed because of seasonal and intermittent slaughtering schedules except in establishment 81 where horse slaughtering was reviewed and was in compliance.

The Chief Meat Inspection Officer assured that problem of peeling paint and rust spots on the equipment would be solved before any establishment starts slaughtering and boneless meat inspection program will be set up by quality assurance.

Laboratory Audit

During the laboratory audits, emphasis was placed on the application of procedures and standards that were equivalent to U.S. requirements. Information about the following risk areas was also collected.

1. Intra-laboratory quality assurance procedures, including sample handling.
2. Methodology

The Fisheries Drug Residues Laboratory in Reykjavik, and Institute of Experimental Pathology Laboratory in Keldur were audited on October 26, 1999. Effective controls were in place for sample handling and frequency, timely analysis, data reporting, tissue matrices for analysis, equipment operation and printouts, minimum detection levels, recovery frequency, percent recovery, and corrective actions. The methods used for the analyses were acceptable. No composting of samples was done.

The check sample program did not meet FSIS requirements in previous audit. This problem was corrected. Confirmation of antibiotics, drugs and other antibacterial are done at the Norwegian School of Veterinary in the Department of Pharmacology and Food Hygiene, Oslo and confirmation of pesticides and herbicides are done at National Veterinary and Food Research Institute, Helsinki, Finland.

Salmonella and *E. coli* testing were not required at the time of this audit because Iceland only exports meat from sheep and FSIS has not yet established performance standards for sheep.

Establishment Operations by Establishment Number

The following operations were being conducted in the four establishments during this audit:

Lamb and pork boning - one establishment-31.

Lamb boning – two establishments (22 and 23)

Horse slaughtering, cutting and boning; lamb cutting and boning-one establishment-81

SANITATION CONTROLS

Based on the site audits of establishments, Iceland's inspection system had controls in place for basic establishment facilities; condition of facilities and equipment; product protection and handling; and establishment sanitation program except as noted above in the establishment audit section.

Sanitation Standard Operating Procedures (SSOPs)

Each establishment was evaluated to determine if the basic FSIS regulatory requirements for SSOPs were met, according to the criteria employed in the U.S. domestic inspection program. The data collection instrument used accompanies this report (Attachment A).

The Sanitation Standard Operating Procedures (SSOPs) were audited and found to meet the FSIS regulatory requirements, except in Establishment 31 where there were no records of operational sanitation. SSOP is maintained in booklet form designated Sanitation Manual.

No specific observation was made regarding Cross-Contamination, Product Handling and Storage, and Personnel Hygiene and Practices in Est. 22, 23, and 81 (not in operation).

ANIMAL DISEASE CONTROLS

Iceland's inspection system had controls in place to ensure adequate animal identification, antemortem and postmortem inspection procedures and dispositions, humane handling and slaughter, condemned and restricted product control, and procedures for sanitary handling of returned and rework product.

There were reported to have been no outbreaks of animal diseases with public-health significance since the previous U.S. audit.

RESIDUE CONTROLS

Iceland's National Residue Testing Plan for 1999 was being followed and was on schedule. Iceland's inspection system had adequate controls in place to ensure compliance with sampling and reporting procedures and storage and use of chemicals.

SLAUGHTER/PROCESSING CONTROLS

Iceland's inspection system had adequate controls in place to ensure adequate slaughter and processing procedures.

HACCP Implementation

All establishments approved to export meat products to the U.S. are required to have developed and implemented a Hazard Analysis – Critical Control Point (HACCP) system. Each of these systems was evaluated according to the criteria employed in the U.S. domestic inspection program. The data collection instrument used accompanies this report (Attachment B).

The HACCP programs were audited and found to meet the basic FSIS regulatory requirements, with only occasional minor variations and that was in the establishment 31 where verification procedures and their documentation was lacking.

Testing for Generic *E. coli*

E. coli testing was not required at the time of this audit because Iceland only exports meat from sheep and FSIS has not yet established performance standards for sheep.

Additionally, establishments had adequate controls in place to prevent pork, beef and horsemeat products intended for Iceland's domestic consumption from being commingled with lamb products eligible for export to the U.S.

ENFORCEMENT CONTROLS

Inspection System Controls

Except as noted in this report, Iceland's inspection system controls (ante-and post-mortem inspection procedures and dispositions, control of restricted product and inspection samples, control and disposition of dead, dying, diseased or disabled animals boneless meat reinspection, shipment security, including shipment between establishments, prevention of commingling of product intended for export to the United States with domestic product, monitoring and verification of establishment programs and controls (including the taking and documentation of corrective actions under HACCP plans), inspection supervision and

documentation, the importation of only eligible livestock from other countries (i.e. only from eligible countries and certified establishments within those countries), and the importation of

only eligible meat or poultry products from other countries for further processing were in place and effective in ensuring that products produced by the establishment were wholesome, unadulterated, and properly labeled. In addition, adequate controls were found to be in place for security items, shipment security and products entering the establishments from outside sources.

Testing for *Salmonella* Species

Salmonella testing is not required because Iceland only exports meat from sheep and FSIS has not yet established performance standards for sheep.

Species Verification Testing

At the time of this audit, Iceland was not exempt from the species verification-testing requirement. The auditor verified that species verification testing program is being set up at Fisheries Laboratory at Reykjavik in accordance with FSIS requirements.

Monthly Reviews

These reviews were being performed by Chief Meat Inspection Officer (CMIO) and Assistant chief from the office of Chief Veterinary Officer. All were veterinarians with at least 15 years of experience. Dr. Sgurroun Orn Hansson was in charge of the slaughter establishments, processing and storage facilities.

The internal review program was not applied equally to both export and non-export establishments. The internal review program was carried out in exporting establishments. Internal review visits were not announced in advance, and were conducted, at least once a quarter, and sometimes two or three times year but not monthly, which did not meet the U.S. requirements. The records of audited establishments were kept in the inspection offices of the individual establishments, and copies were also kept in the central CMIO office in Reykjavik, and were routinely maintained on file for a minimum of 3 years.

In the event that an establishment is found, during one of these internal reviews, to be out of compliance with U.S. requirements, and is delisted for U.S. export, before it may again qualify for eligibility to be reinstated, the Chief Meat Inspection Officer is empowered to conduct an in-depth review. The results are reported to the CVO for evaluation. He then formulates a plan for corrective actions and preventive measures.

After observing the internal reviewer's activities in the field, the auditor was confident in their professionalism, thoroughness, and knowledge of U.S. requirements, and in the effectiveness of Iceland's internal review program as a whole.

Enforcement Activities

Administrative and criminal enforcement of laws and regulation regarding meat inspection were initiated by the CVO of the Ministry of Agriculture and were carried out by Justice and Finance Ministry officials.

Exit Meetings

An exit meeting was conducted in Reykjavik on October 29. The participants were Dr Suresh P. Singh, International Audit Staff Officer, USDA, Dr. Halldor Runolfsson, CVO, and Dr. Sigurroun Orn Hansson, CMIO. The following topics were discussed:

1. Peeling paint and rust spots in the idle slaughtering areas of establishment numbers 22, 23, and 31. Dr.Hansson assured that these deficiencies would be corrected before slaughter of sheep starts in these establishments.
2. Complete separation of slaughtering and boning of horsemeat will be maintained in all the US certified establishments. The auditor did not observe any potential of commingling of different species in the entire establishment audited.
3. Boneless meat inspection of lamb meat will be incorporated in HACCP program.

CONCLUSION

The inspection system of Iceland was found to have effective controls to ensure that product destined for export to the United States was produced under conditions equivalent to those which FSIS requires in domestic establishments. No serious deficiencies were encountered during the on-site establishment reviews. Four establishments (22, 23, 31, and 81) were audited; all were acceptable. The deficiencies encountered during the on-site establishment audits, in those establishments which were found to be acceptable, were adequately addressed to the auditor's satisfaction.

Dr. Suresh P. Singh
International Audit Staff Officer

(Signed) Dr. Suresh P. Singh

ATTACHMENTS

- A. Data collection instrument for SSOPs
- B. Data collection instrument for HACCP programs

Data Collection Instrument for SSOPs

Each establishment was evaluated to determine if the basic FSIS regulatory requirements for SSOPs were met, according to the criteria employed in the U.S. domestic inspection program. The data collection instrument contained the following statements:

1. The establishment has a written SSOP program.
2. The procedure addresses pre-operational sanitation.
3. The procedure addresses operational sanitation.
4. The pre-operational procedures address (at a minimum) the cleaning of food-contact surfaces of facilities, equipment, and utensils.
5. The procedure indicates the frequency of the tasks.
6. The procedure identifies the individuals responsible for implementing and maintaining the activities.
7. The records of these procedures and any corrective action taken are being maintained on a daily basis.
8. The procedure is dated and signed by the person with overall on-site authority.

The results of these evaluations were as follows:

Est. #	1. Written program addressed	2. Pre-op sanitation addressed	3. Oper. sanitation addressed	4. Contact surfaces addressed	5. Frequency addressed	6. Responsible indiv. identified	7. Documentation done daily	8. Dated and signed
22	√	√	√	√	√	√	√	√
23	√	√	√	√	no	√	√	√
31	√	√	no	√	√	√	√	√
81	√	no	no	no	no	no	no	No

Data Collection Instrument for HACCP Programs

Each of the establishments approved to export meat products to the U.S. was required to have developed and implemented a Hazard Analysis – Critical Control Point (HACCP) system. Each of these systems was evaluated according to the criteria employed in the U.S. domestic inspection program. The data collection instrument included the following statements:

1. The plant has a flow chart that describes the process steps and product flow.
2. The establishment had conducted a hazard analysis.
3. The analysis includes food safety hazards likely to occur.
4. The analysis includes the intended use of or the consumers of the finished product(s).
5. There is a written HACCP plan for each product where the hazard analysis revealed one or more food safety hazard(s) reasonably likely to occur.
6. All hazards identified in the analysis are included in the HACCP plan; the plan lists a CCP for each food safety hazard identified.
7. The HACCP plan specifies critical limits, monitoring procedures, and the monitoring frequency performed for each CCP.
8. The plan describes corrective actions taken when a critical limit is exceeded.
9. The HACCP plan was validated using multiple monitoring results.
10. The HACCP plan lists the establishment's procedures to verify that the plan is being effectively implemented and functioning and the frequency for these procedures.
11. The HACCP plan's record-keeping system documents the monitoring of CCPs and/or does not include records with actual values and observations.
12. The HACCP plan is dated and signed by a responsible establishment official.

The results of these evaluations were as follows:

Est.	1. Flow Diagram	2. Hazard analysis done	3. All hazards identified	4. Use, users included	5. Plan for each hazard	6. CCPs for all hazards	7. Monitoring is specified	8. Corrective actions are described	9. Plan validated properly	10. Adequate verification procedures	11. Adequate documentation	12. Dated and signed
22	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
23	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	no
31	✓	✓	✓	✓	✓	✓	✓	✓	no	✓	✓	✓
81	✓	✓	✓	✓	✓	✓	✓	✓	✓	no	✓	✓